

COMMISSION ACTION

NCPC File No. MP174



PENTAGON RESERVATION MASTER PLAN

Arlington County, VA

Submitted by the Department of Defense

June 2, 2005

Commission Action Requested by Applicant

Approval of revised master plan pursuant to Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1))

Commission Action

The Commission:

Approves the master plan for the Pentagon Reservation, as shown on NCPC Map File No. 1.62(05.14)41592, with the exception of the Transportation Management Plan (TMP).

- Requires that the Department of Defense submit a revised Transportation Management Plan prior to submitting any future projects in accordance with the Commission's submission guidelines and the 2004 *Comprehensive Plan for the National Capital; Federal Elements*, to include a long-range comprehensive parking needs and demands study as required by the Commission's action on the 1991 master plan submittal. The revised Transportation Management Plan should also include:
 - A plan demonstrating how the Department of Defense will meet the 1:4 parking ratio as required by the Comprehensive Plan; or,
 - A rationale for why the required parking ratio cannot be met
- Commends the Department of Defense for converting impervious surfaces to green space and consolidating surface parking into structures with green roofs that function as stormwater filtration.

- Recommends converting the North Parking surface lots to landscaped stormwater filtration systems in an earlier phase, once the South Parking Structure 1 is operational, to avoid increasing the parking supply.
- Encourages the Department of Defense to update the concept signage plan adopted in 2001 and to develop projects to implement the master plan recommendations.
 - Recommends signing all major gateways to the reservation clearly and coherently with a unique marker that identifies the reservation, provides directional information, and provides parking, access control and security information as needed and removing markers such as LED panels that clutter gateways with information not contributing to a sense of arrival, orientation, or direction.
- Reminds the Department of Defense of the importance of submitting the Federal Office Building 2 Master Plan for Commission review, to include issues of pedestrian access, transit linkages, and urban design for the area between Federal Office Building 2 and the Pentagon.

Deborah B. Young
Secretary to the National Capital Planning Commission

STAFF RECOMMENDATION

NCPC File No. MP174



PENTAGON RESERVATION MASTER PLAN

Arlington County, VA

Submitted by the Department of Defense

May 26, 2005

Abstract

The Department of Defense (DoD) has submitted a master plan for the Pentagon Reservation, located in Arlington County, Virginia. The master plan outlines the future development of the reservation in four phases over the next 20 years.

The two primary objectives for the master plan are the completion of a permanent secure perimeter around the Pentagon, established following the September 11, 2001 attack on the Pentagon, and enhancing environmental sustainability in part by consolidating surface parking and restoring impervious land areas to provide direct environmental benefits. The Master Plan proposes no growth in the number of personnel, employee-owned vehicles, or quantity of office space on the reservation.

Commission Action Requested by Applicant

Approval of revised master plan pursuant to Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1)))

Executive Director's Recommendation

The Commission:

Approves the master plan for the Pentagon Reservation, as shown on NCPC Map File No. 1.62(05.14)41592, with the exception of the Transportation Management Plan (TMP).

- Requires that the Department of Defense submit a revised Transportation Management Plan prior to submitting any future projects in accordance with the Commission's

submission guidelines and the 2004 *Comprehensive Plan for the National Capital; Federal Elements*, to include a long-range comprehensive parking needs and demands study as required by the Commission's action on the 1991 master plan submittal. The revised Transportation Management Plan should also include:

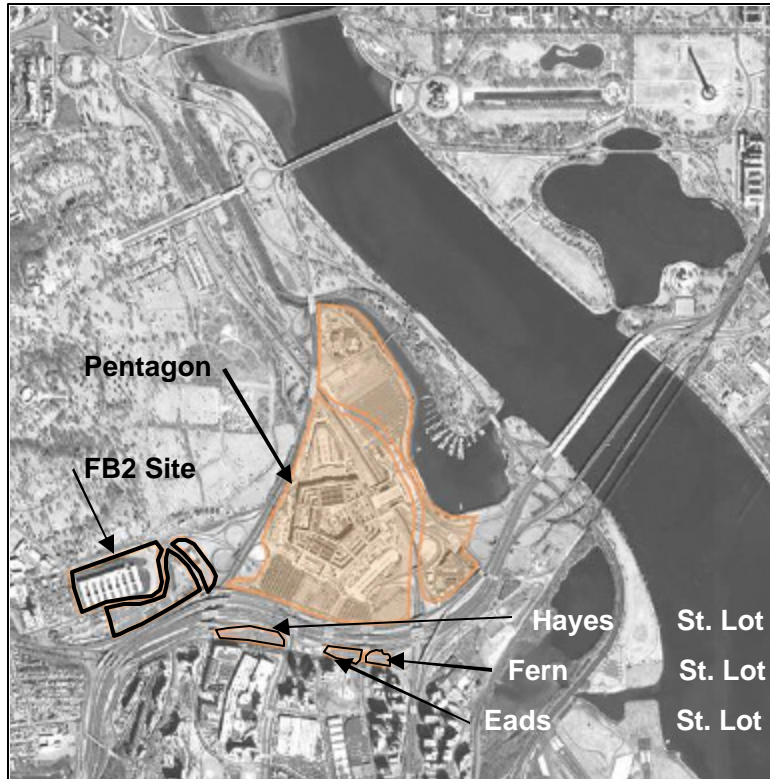
- A plan demonstrating how the Department of Defense will meet the 1:4 parking ratio as required by the Comprehensive Plan; or,
 - A rationale for why the required parking ratio cannot be met
-
- Commends the Department of Defense for converting impervious surfaces to green space and consolidating surface parking into structures with green roofs that function as stormwater filtration.
 - Recommends converting the North Parking surface lots to landscaped stormwater filtration systems in an earlier phase, once the South Parking Structure 1 is operational, to avoid increasing the parking supply.
 - Encourages the Department of Defense to update the concept signage plan adopted in 2001 and to develop projects to implement the master plan recommendations.
 - Recommends signing all major gateways to the reservation clearly and coherently with a unique marker that identifies the reservation, provides directional information, and provides parking, access control and security information as needed and removing markers such as LED panels that clutter gateways with information not contributing to a sense of arrival, orientation, or direction.
 - Reminds the Department of Defense of the importance of submitting the Federal Office Building 2 Master Plan for Commission review, to include issues of pedestrian access, transit linkages, and urban design for the area between Federal Office Building 2 and the Pentagon.

* * *

PROJECT DESCRIPTION

Site

The Master Plan area includes the main reservation property generally bounded by Interstate 395 (I-395) to the south, Boundary Channel Drive to the east and Route 27 to the west. This area is similar to the 1991 Master Plan and totals approximately 220 acres. The Master Plan does not include the Federal Building 2 (FB2) site to the east of Route 27, and the Army-Navy Drive sites located south of I-395. The FB2 site is included in a separate document, Navy Annex FB2 Master Plan currently undergoing review. The Army-Navy Drive sites include the Hayes Street, Fern Street, and Eads Street parking lots and are currently under evaluation to be studied separately as enhanced use lease (EUL) parcels. The complete reservation property, including both the FB2 and the Army-Navy Drive sites, encompasses approximately 258 acres.



Master Plan Area

Pentagon Reservation
Boundaries

Parcels included
in Reservation

FB2 Site

Hayes Street Lot 'A'

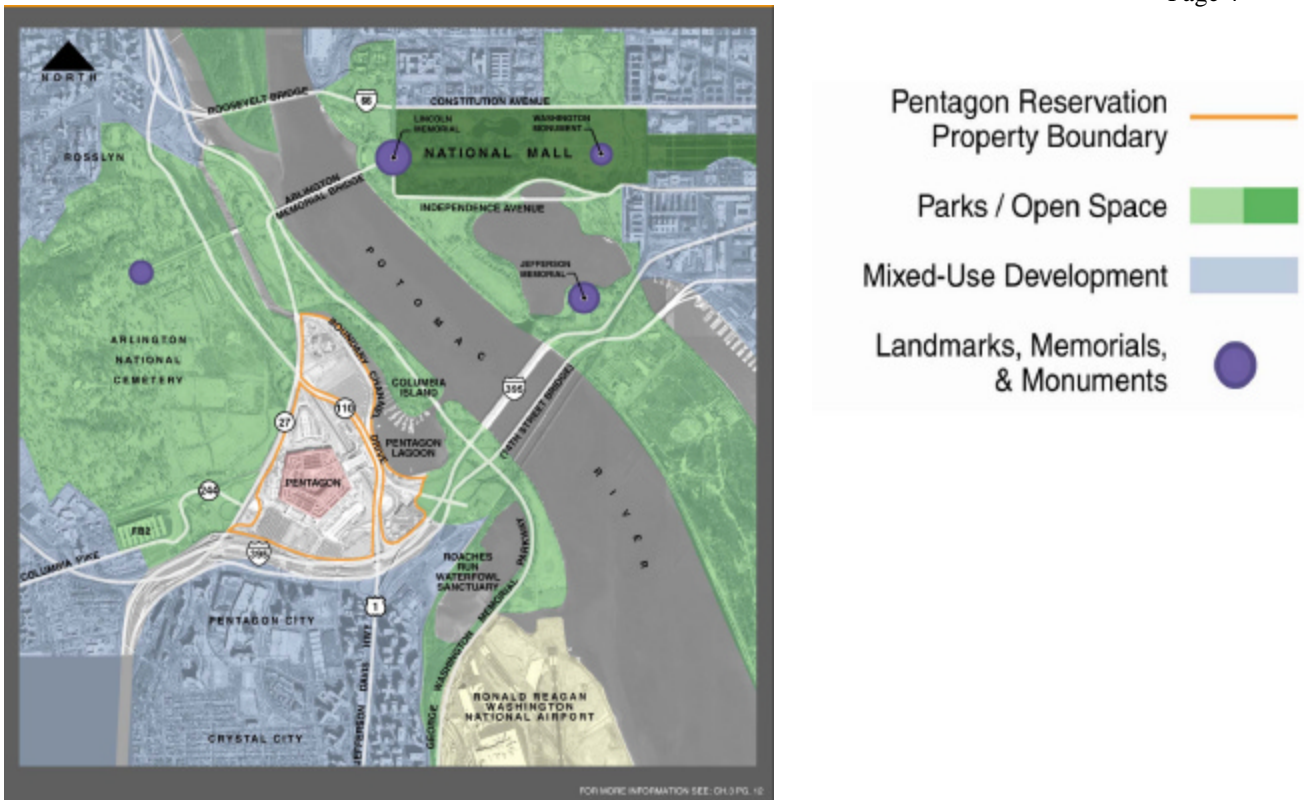
Eads Street Lot 'B'

Fern Street Lot 'C'

PENTAGON RESERVATION: PROPERTY BOUNDARIES; MASTER PLAN AREA

The dominant feature on the reservation is the Pentagon Building, which covers 34 acres and contains 6.5 million gross square feet of space, and serves as the headquarters for the DoD. The 8,100 parking spaces in surface lots around the building occupy a significant amount of the remaining land, most of which are concentrated in the North and South Parking areas. Although the land generally slopes toward the east to Boundary Channel Drive, the Pentagon Lagoon and the Potomac River, most of the natural topography of the reservation has been altered from its natural state by construction and fill, with few areas of landscaping and natural green space. The Pentagon, completed in 1943 to house the rapid expansion of the military during World War II, became the headquarters of the Department of Defense when it was created in 1947, and is a National Historic Landmark.

Access to the reservation is provided by most of the major and minor surrounding roadways. Most roadways are not constrained by controlled access gates except during heightened alerts. Major roadways that provide direct access to and from the reservation include Route 110/1, realigned as a secure bypass for the Pentagon (PSB), Route 27, Columbia Pike, where a truck inspection facility controls access to a Remote Delivery Facility (RDF), Route 244, and high occupancy vehicle (HOV) lane access from I-395 via Eads Street. The Pentagon Transit Center (PTC), located on the southeast side of the Pentagon Building serves as a major intermodal transfer point for Metrorail and several regional bus services.



REGIONAL CONTEXT AND EXISTING LAND USE

Background

The proposed Master Plan addresses issues unresolved since the last master plan was approved in 1991. On October 3, 1991, the Commission approved, “effective upon completion of the Section 106 process, the Master Plan for the Pentagon Reservation, except for the North Parking Area, FOB 2-Navy Annex Complex, and the Hayes, Fern, and Eads Parking Areas along Army-Navy Drive, south of Interstate 395”. The Commission’s approval of the master plan established an employment ceiling of 30,000 employees, and requested that the Department of Defense, in further master and project planning for the reservation;

- a. Consider alternate long-term concepts for the use of the North Parking and Sewage Treatment Plant Areas consistent with the Comprehensive Plan and compatible with the adjacent George Washington Memorial Parkway and Arlington National Cemetery areas;
- b. Provide for the earliest possible removal of the FOB 2-Navy Annex Complex and long-term uses for the site consistent with the Comprehensive Plan, including cultural, memorial, and informational activities, in combination with park, recreation and conservation activities;
- c. Improve the scenic quality and green gateway character along Interstate 395 by enhancing the landscape design on the Reservation and improving the Army-Navy Drive streetscape, possibly eliminating the Hayes, Fern, and Eads Parking areas and replacing

them with park-like urban landscaping, passive recreational activities and pedestrian spaces compatible with the existing Arlington County streetscape system;

- d. Examine possibilities for strengthening the pedestrian linkages through the South Parking area and Fern and Eads Street underpasses connecting the Pentagon Building with Pentagon City south of Army-Navy Drive by widening walkways and improving the appearance of landscaping, signage and lighting;
- e. Capitalize on design opportunities in the redesign of the Mall plaza above the proposed Logistics Support Extension by considering more ceremonial and recreational activities, civic art, and commemorative features to enhance and promote the overall design of the Pentagon grounds;
- f. Ensure that the service dock areas of the Logistics Support Extension are designed to be completely screened from off-site views to avoid any adverse visual impacts;
- g. Provide a long-range comprehensive parking needs and demands study in conjunction with a Transportation Management Program that includes incentives for the use of public transit, car; van pooling, bicycle use and other programs with the objective of reducing surface parking areas and increasing landscaped and recreational open space; and
- h. Examine the long-term facility needs of the Pentagon in the context of emerging technological changes.

In addition, the Commission encourages the Department of Defense to continue coordination with Arlington County to resolve the remaining outstanding issues related to the master plan.

This master plan has remained in effect, with a modification approved by the Commission on October 5, 2000 in conjunction with approval to relocate the Metro Entrance Facility. Numerous projects located at the Pentagon have been approved since the 1991 Master Plan, but the Relocation of the Metro Entrance Facility was the only one approved in conjunction with a master plan modification. Additional projects of note received Commission approval as follows:

- Preliminary and final design plans for the Security Bypass and Remote Delivery Facility Secure Access Lane received Commission approval at its meeting on June 5, 2003.
- Concept Design for the Pentagon Memorial to the Victims of September 11, 2001 received Commission approval at its meeting on June 5, 2003.
- Preliminary and final site and building plans for the U.S Air Force Memorial at the Arlington Naval Annex received Commission approval at its meeting on August 5, 2004.
- Preliminary site and building plans for the Renovation and Construction of a Library and Conference Center at the Pentagon Reservation received Commission approval at its November 4, 2004 meeting.



EXISTING LAND USE



PROPOSED LAND USE



Auxiliary – Functions, amenities and services directly assisting Pentagon employees
Support – Delivery, services, utilities and industrial functions that support the Pentagon

Master Plan Objectives:

Primary Objectives of the Master Plan include:

- **Completion of the permanent secure perimeter**

The first primary objective is the full realization of the permanent secure perimeter. The secure perimeter defines the boundaries, within the reservation, that separate screened and unscreened vehicles, and delineates the checkpoints where access by both vehicles and pedestrians can be controlled. Pedestrian access at the perimeter will be controlled by fences, or other barriers, that channel pedestrians to control points where screening can be carried out.

- **Implementation of enhanced sustainability strategies**

The second primary objective is the implementation of enhanced sustainable strategies through the consolidation of the majority of reservation surface parking lots into multi-level parking structures with green roofs and the restoration of large impervious land areas into natural and open, sustainable landscape regions. The pervious land areas on the reservation will increase from 75 to 132 acres. This change will result in an enhanced ability of the site to retain and filter rain water runoff.



EXISTING SECURITY



PROPOSED SECURITY



EXISTING GREEN AREAS

Plazas/Parks at Grade



PROPOSED GREEN AREAS

Green Roofs

Additional objectives include:

- **An improved, permanent Heliport incorporating all standard requirements**

The proposed Heliport will be located within the secure perimeter, just north of the River Terrace, over structured parking. All vehicles accessing this structure will be screened and the parking structure, itself, will need to be designed to specifically address the special requirements that accompany this combination of uses.

- **Consolidation of parking to provide additional open space and better use of site**

The Master Plan eliminates most of the surface parking, replacing it with multi-level parking structures in the South Parking area and to the north and south of the River Terrace. These structures will be located outside the secure perimeter. The low lying structures will not impact the historic vistas of the Pentagon building and are carefully situated so that their green roofs will improve the visual appearance of the reservation. The existing number of parking spaces and parking ratio will remain constant.

- **Improvement to vehicular and pedestrian circulation**

A key component of the proposed circulation improvement is the addition of a High Occupancy (HOV) lane, at the juncture of Route 27 and Columbia Pike, designed to alleviate the congestion that now occurs at the single HOV access point located at Eads Street. Other circulation improvements include: opening existing and creating new roadways, widening and signaling the existing Rotary Road system; enhancing access for public transportation, by providing buses with more routes through and across the reservation; creating a designated ride-share facility, improving accommodations for DoD shuttle buses, and employee drop-off.

- **Creation of an industrial zone for like uses**

The Motor Pool will be relocated to the Heating and Refrigeration Plant (HRP) area, a primary industrial zone where large infrastructure support elements are concentrated, as a separate support function, within its own secure perimeter, a very short distance from the Pentagon.

- **Design guidelines to enhance and protect the historic nature of the reservation**

The Master Plan includes a set of design guidelines for implementation of the Master Plan proposals and for all future development on the reservation. The intent of the guidelines is to ensure that all future development on the site adheres to a common set of design rules, preserving a unified and harmonious set of buildings and supporting elements. The guidelines would govern size and massing of structures and the basic palette of building materials, as well as signage, landscape and site amenities.

Parking Summary:

The following table summarizes the increase and decrease in number of parking spaces available during the four construction phases of five years each over the 20 year master plan. The master plan states employment level as a constant of 23,000 employment, not expected to increase during the 20 year horizon of the master plan. Parking ratios are calculated for the peak number of parking spaces during each phase, identified by year. Due to employee population shifts to swing space during the renovation of each wedge of the Pentagon, an employee transportation survey is not planned until the completion of Pentagon renovation approximated as 2012.

Table 1 PARKING SEQUENCE SUMMARY and PARKING RATIO

Phase Year	Sequence 1 2006 – 2010	Sequence 2 2010 – 2015	Sequence 3 2015 – 2020	Sequence 4 2021 - 2025
	North Parking Structure	South Parking Structure 1	South Parking Structure 2	East Parking Structure
Parking Count on Reservation Prior to Construction Start	8,100			
Beginning of Sequence # Parking Spaces	8, 100	9, 150	11, 140	12,912
Middle of Sequence # Parking Spaces	7,100	7,616	10,332	9,715
End of Sequence # parking spaces	9,150	11,140	12,912	11,554**
Parking Ratio: # Parking Spaces # Employees Based on 23,000* Employees	1:2.5 Year 2010	1:2.06 Year 2016	1:1.78 Year 2019	1:1.99 Year 2024
Total # of Spaces at Completion of Master Plan				8,100** 1:3.03 Year 2025

*Although employment levels on site could drop by as much as 20% of total due to population shifts to swing space during phased renovation of the Pentagon, 23,000 has been used to calculate parking ratios. However, ratios may actually fall lower than shown.

**The drop in quantity of parking spaces from 11,154 to 8,100 in one year results from waiting to convert any surface parking to green open landscaped areas until the end of the last construction phase.

PROJECT ANALYSIS

Executive Summary

Although traffic congestion has continued to worsen since the 1991 Master Plan was approved by the Commission, many proactive solutions are proposed in the revised Master Plan to counteract that trend. DoD should be commended for its efforts to incorporate the majority of the recommendations and requests made by the Commission in its Action on the 1991 Master Plan into the current Master Plan. Other than issues addressed in a separate master plan for the Federal Office Building (FOB) 2, each recommendation has been incorporated, or at least addressed, in the revised Master Plan, except for the recommendation to provide a long-range comprehensive parking needs and demands study in conjunction with a Transportation Management Program. In addition the TMP does not set goals for meeting the approved ratio of employees to parking spaces in the Comprehensive Plan approved by the Commission in October, 2004.

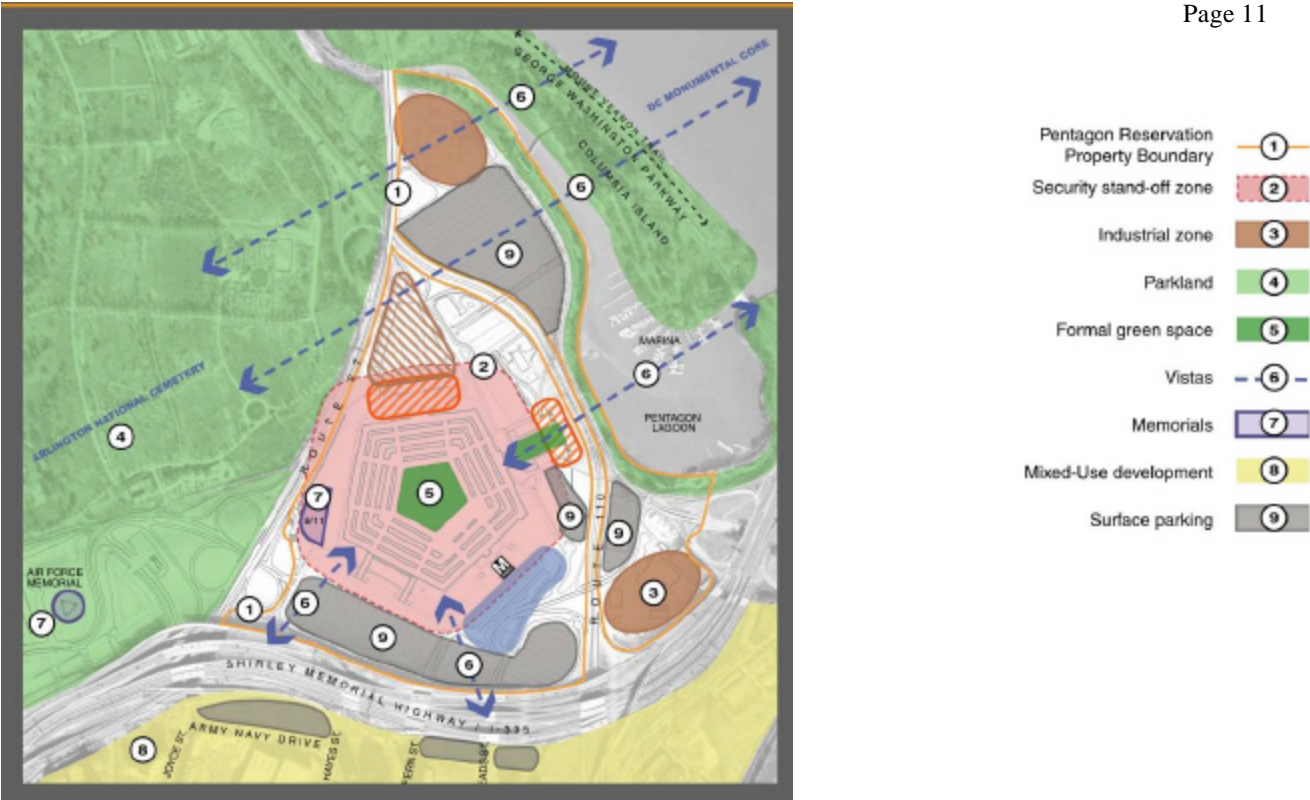
Below, primary Master Plan objectives are evaluated and compared against development shown in the plan. Following that, Commission recommendations that accompanied approval of the 1991 Master Plan are evaluated in terms of implementation in the current Master Plan.

▪ **Completion of the permanent secure perimeter**

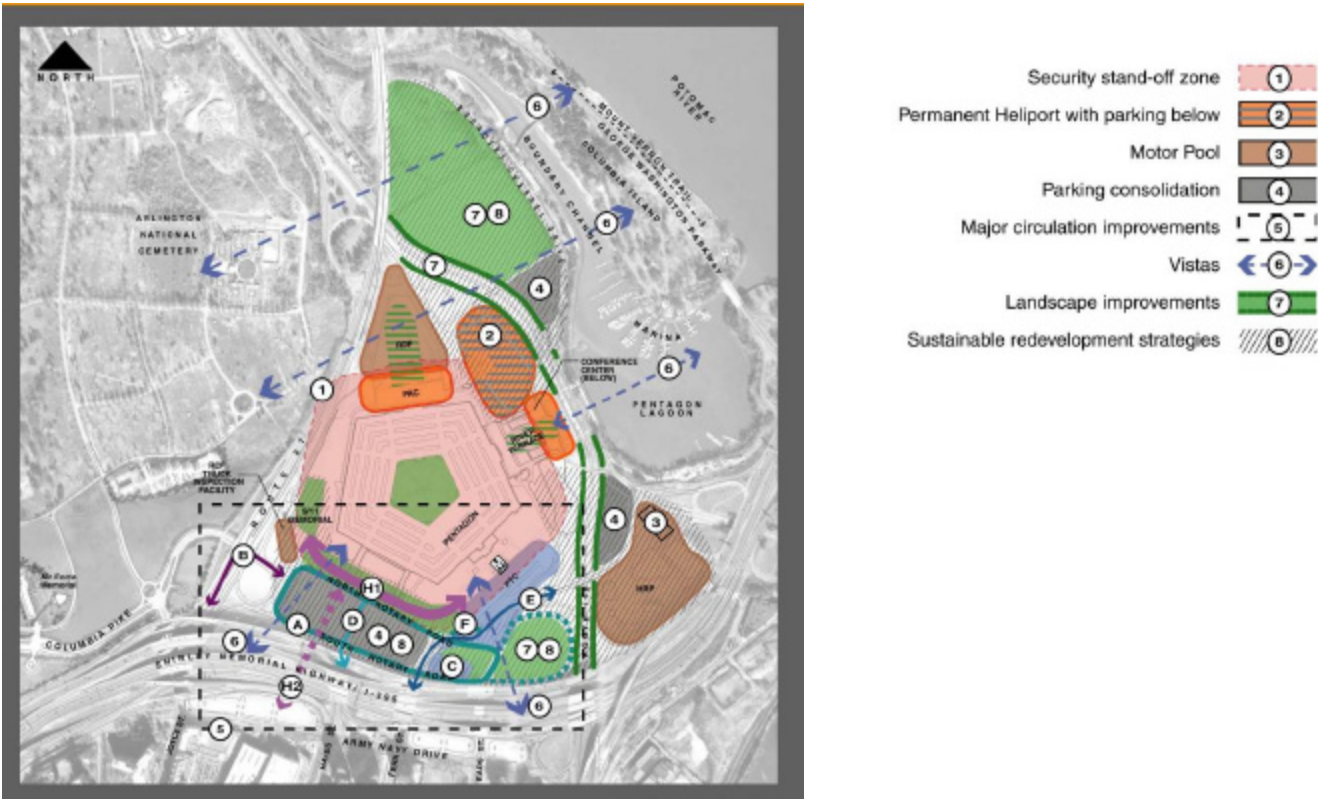
The Master Plan objective to create a stand-off zone was used as an opportunity to create a pedestrian plaza south of the building to be used for ceremonial functions. In order to achieve the required stand-off on the east side, Route 110 was realigned to form the Pentagon Security By-pass (PSB). However, road realignment is not proposed by the Master Plan on the west side, where a portion of Route 27 lies within the security stand-off zone. As mitigation, a concrete wall has been constructed along the east side of Route 27 to serve as a barrier against threats from blast, vehicles, and pedestrians. Landscape mitigation has been planned to soften the appearance of the wall from Route 27, and to create buffers within the stand-off zone.

▪ **Implementation of enhanced sustainability strategies**

Because the reservation is located within the Chesapeake watershed, the principle areas of greatest environmental impact are stormwater and transportation management. Multiple proposals are included in the Master Plan to improve stormwater management by reducing the reservation's total runoff. Removing 56 acres of surface parking lots and increasing the amount of total pervious area from 75 acres to 132 acres are proposed to reduce the reservation's total runoff. As for transportation management, a generalization is made that reduction of private automobile use to reduce fuel consumption and related air and water pollutants can be achieved by continuing to promote mass transit, HOV use, carpooling or alternate fuel vehicles. However, no goals are set and no proposals are made for improving the parking space to employee ratio from 1:3, even though the reservation includes a major intermodal transfer point. Staff therefore recommends that the DoD submit a plan demonstrating how it will meet the 1:4 parking ratio as required by the Comprehensive Plan;



EXISTING URBAN DESIGN FRAMEWORK



PROPOSED KEY ELEMENTS URBAN DESIGN

- **An improved, permanent Heliport incorporating all standard requirements**

The current location of the Heliport on the David O. Cooke Terrace does not meet the requirements for optimum safe landing, easy access by emergency vehicles, and visual screening. It has been permitted on a temporary basis, renewable annually, as DoD demonstrates progress in locating a permanent site. In addition, its location has not allowed the David O. Cooke Terrace to be used for ceremonial functions as intended. The proposed location on a roof above structured parking would provide easy access to the ceremonial River Terrace and David O. Cooke Terrace and associated VIP parking lots and key entrances.

- **Consolidation of parking to provide additional open space and better use of site**

The Master Plan proposes phased consolidation of and replacement of surface parking over a 20 year horizon. However, the phasing plan falls short in its delay converting the North Parking and PenRen areas to pervious landscaped open space and stormwater management until the final phase. This timing would further delay environmental benefits due to parking space reduction and landscape strategies. The number of parking spaces would remain higher; (closer to 1:2) than to the proposed 1:3 ratio or even the required 1:4 ratio for almost eight years, or one third of the planning horizon. Proactive environmental strategies to reduce stormwater runoff could be delayed by as much as ten years. Both would delay benefits of reducing air and water pollutants. Staff therefore recommends implementation of landscaping at the North Parking area and conversion to stormwater management (thus eliminating surface parking) in an earlier phase, once the South Parking Structure 1 is operational, to avoid increasing the parking supply.

- **Improvement to vehicular and pedestrian circulation**

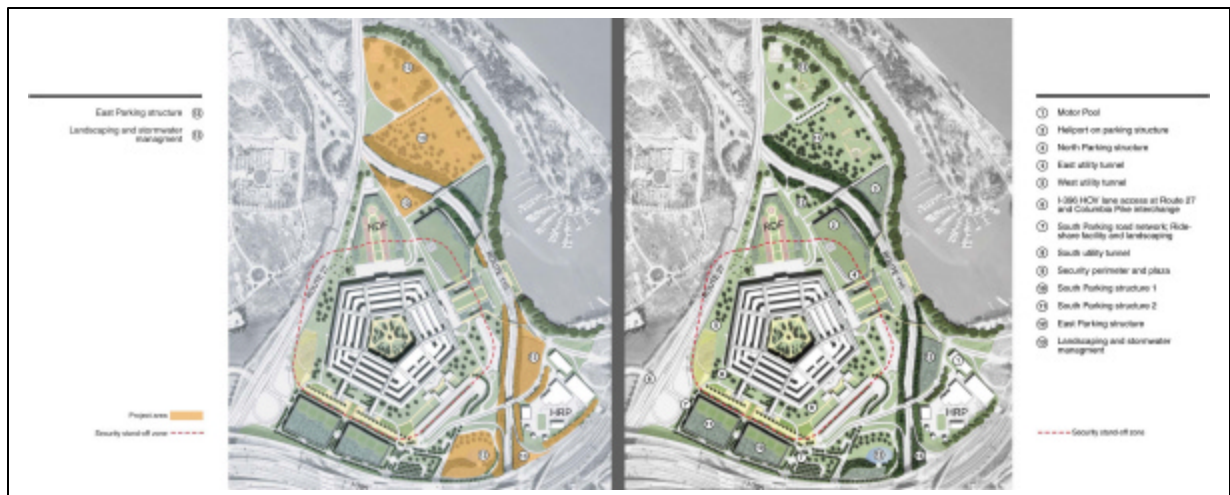
While the Master Plan addresses most of the vehicular concerns within the Pentagon Reservation and mostly pertains to clearing vehicle traffic off of the reservation, VDOT has expressed several concerns with traffic entering the reservation and potentially backing up on the surrounding road network while waiting to enter parking areas on the reservation. Specifically, the location of the proposed HOV ramp may limit the length of the ramp. VDOT recommends a detailed traffic analysis to configure the ramp and design adequate traffic control. VDOT also recommends considering strategies to assure that inbound traffic is not blocked from the northbound 1-395 HOV ramp at Eads Street and South Rotary Road during the morning peak demand. Staff supports the proposals to upgrade existing pedestrian circulation at grade and in an existing tunnel to Army-Navy Drive. Improving Rotary Road vehicle circulation, clearly defining roadways through the South Parking area and designating lanes for pick-up, drop-off, and informal rideshare will contribute to pedestrian safety. Tunnels proposed below North Rotary Road would minimize pedestrian vehicle conflicts by separating pedestrian from vehicle circulation at points of high conflict.

- **Creation of an industrial zone for like uses**

This objective appears to be successfully addressed by the Master Plan.

▪ **Design guidelines to enhance and protect the reservation**

The current streetscape on the reservation is dominated by temporary security barriers, on-going construction activity, and temporary confusing signage. The Master Plan calls for improving these conditions to enhance clarity and hierarchy of circulation patterns and to create a more attractive visitor friendly environment, and recommends a hierarchy for gateway entries and roadways. A comprehensive orientation and directional sign system for the entire reservation would make wayfinding easier, enhance circulation efficiency, and provide a tool to communicate security levels quickly, as well as enhance the overall image of the reservation. The Pentagon adopted a concept signage plan in 2001. The concept plan has not been updated or integrated with the Master Plan recommendations. Staff therefore encourages the Department of Defense to update the concept signage plan adopted in 2001 and to develop projects to implement the master plan recommendations. Staff further recommends signing all major gateways to the reservation clearly and coherently with a unique marker that identifies the reservation, provides directional information, and provides parking, access control and security information as needed and removing markers such as LED panels that clutter gateways with information not contributing to a sense of arrival, orientation, or direction.



IMPLEMENTATION SEQUENCE 4
2020 – 2025

COMPLETED MASTER PLAN
2025

Responses in this Master Plan to previous Commission actions are described below:

- a. In response to the Commission's recommendation to consider alternate long-term concepts for the North Parking and Sewage Treatment Plant, new uses proposed in the master plan would transform both areas to pervious green open space. Active recreation for Reservation employees is proposed for this area. Proposed uses are consistent with the Comprehensive Plan and compatible with the adjacent George Washington Memorial Parkway and Arlington National Cemetery.

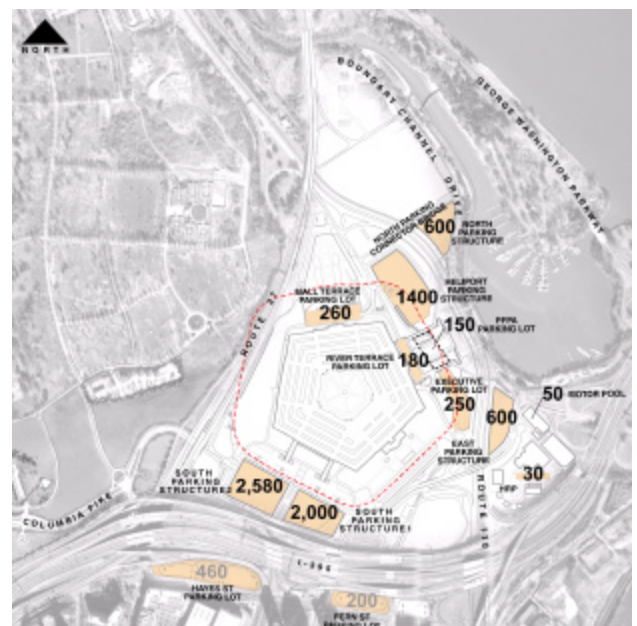
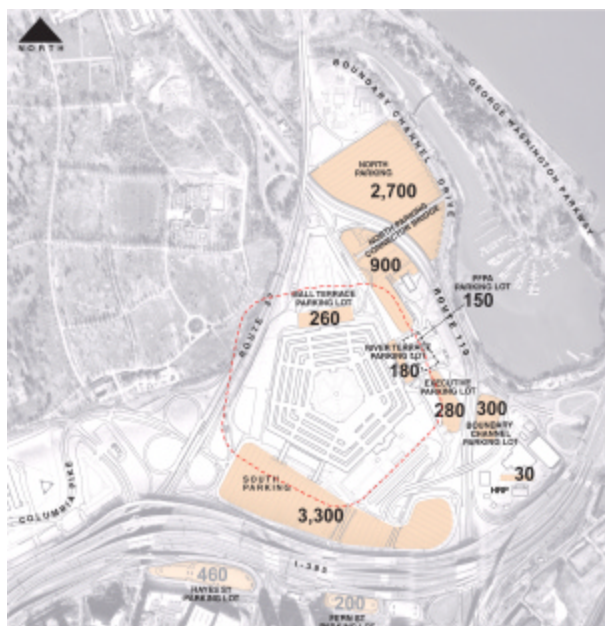
- b. The master plan does not address the Commission's recommendation to provide for the earliest possible removal of the FOB 2-Navy Annex Complex. The FOB-2 Site has been excluded from the Master Plan area. Instead, the 31-acre FB2 site is included in a separate document, "Navy Annex FB2 Master Plan, currently undergoing DoD review. Staff therefore reminds the Department of Defense of the importance of submitting the Federal Office Building 2 Master Plan for Commission review, to include issues of pedestrian access, transit linkages, and urban design for the area between Federal Office Building 2 and the Pentagon.
- c. The master plan responds directly to the Commission's charge to improve the scenic quality and green gateway character along Interstate 395 by enhancing the landscape design on the Reservation but not to the Army-Navy Drive streetscape. It proposes to:
 - Restrict all structures in the South Parking area to a height below the 1-395 roadbed.
 - Reclaim pervious vegetation and creation of new open space to enhance vistas to and from the Pentagon and 1-395.

Hayes, Fern, and Eads Parking areas have also been excluded from the Master Plan area. However, the three parking lots are cited as currently under evaluation to be studied separately as Enhanced Use parcels.

- d. In response to the recommendation to examine possibilities for strengthening the pedestrian linkages through the South Parking area and Fern and Eads Street underpasses, the Design Guidelines portion of the master plan provides more specific and pragmatic ways to enhance the existing system of pedestrian paths, including those that connect with surrounding neighborhoods and to the South Parking structures.
- e. The recommendation to capitalize on design opportunities in the redesign of the Mall plaza above the proposed Logistics Support Extension by considering more ceremonial and recreational activities will be resolved once the heliport is relocated. The terrace function will revert to ceremonial use at that time.
- f. Ensuring that the service dock areas of the Logistics Support Extension are designed to be completely screened from off-site views to avoid any adverse visual impacts has been solved as well by its below-grade location.
- g. The DoD has not provided a long-range comprehensive parking needs and demands study in conjunction with a Transportation Management Program as requested.
- h. To examine the long-term facility needs of the Pentagon in the context of emerging technological changes, the master plan states that strategies for potential development of new, consolidated, and relocated functions within the reservation will be provided.

Transportation Management Plan (TMP)

Through the Transportation Management Plan (TMP), the DoD has outlined programs and policies that are typically implemented to meet recommended parking ratios. In this TMP policies are described but are not recommended for application at the Pentagon if not already in use. The TMP argues that maintaining the 1:3 parking space per employee ratio will assure that the need to provide additional parking will be minimized, but does not state a goal of increasing the current ratio from 1:3 to 1:4. Rather than recommending strategies focused on further decreasing employee reliance on single occupant vehicles while increasing the use of ride-sharing, public transit, a non-motorized transportation, it asserts that a number of such strategies are and will continue to be used to meet the TMP goals. The TMP addresses strategies already established at the Pentagon such as transit service interface, ad hoc ride sharing, and high occupancy vehicle priority. However, it also acknowledges that the Pentagon does not currently make use of two of the strategies critical to meeting the goals of the TMP, commuter information programs, and ride-sharing matching services, nor does it aggressively obtain feedback from employees on the various transportation to identify areas for improvement.



EXISTING AND PROPOSED PARKING DISTRIBUTION

CONFORMANCE

Comprehensive Plan for the National Capital

Many aspects of the Master Plan are consistent with policies articulated in the *Comprehensive Plan for the National Capital: Federal Elements*, with the exception that the Master Plan and TMP do not attempt to meet the employee to parking space ratio of 1:4. Master Plan objectives and proposals are consistent with policies under the Federal Workplace, Parks and Open Space, and Preservation and historic Features Elements, and some of those under the Federal Environment and Transportation Elements of the *Comprehensive Plan for the National Capital: Federal Elements*. However, in its goal of maintaining the current 1:3 ratio of employees to parking spaces, it clashes with some of the major intents and policies under the Transportation Element and the Federal Environment.

Staff has determined that the proposed Master Plan is **consistent** with several policies in the *Comprehensive Plan for the National Capital: Federal Elements*. Relevant policies include:

Federal Workplace Element The federal government should:

- Encourage federal employees to rideshare, including the use of carpools, vanpools, privately leased buses, public transportation, and other multi-occupant modes of travel. (Development of Workplaces with Communities, Policy #6)
- Design security barrier lines and elements that complement and enhance the character of the area in which they will be located and that respect the historic context of the area when applicable. (Development of Workplaces with Communities, Policy #12)

Transportation Element The federal government should:

- Place parking in structures, preferably below ground, in the interest of efficient land use and good urban design. (Parking Policy #5)

The federal government should prioritize the following types of transportation infrastructure investment:

- Support projects that provide improved transit and roadway access in existing, highly developed areas. (Investment Priorities Policy #3)

Parks and Open Space Element The federal government should:

- Protect, restore, and enhance the Anacostia and Potomac Rivers as great open space resources and as recreational amenities, including shorelines and waterfront areas along rivers. (Rivers and Waterways Policy #4)
- Discourage large paved parking areas and other non-water-related development along the Anacostia and Potomac Rivers. Where large paved areas are required, preference should be given to using pervious surfaces. Existing large parking areas, such as the Pentagon's north

parking lot along Boundary Channel, should be removed as soon as feasible and restored to a landscaped condition with active or passive recreational uses (Rivers and Waterways Policy #15)

Federal Environment Element Federal actions in the region should conform to the following policies:

- Encourage the natural recharge of groundwater and aquifers by limiting the creation of impervious surfaces, avoiding disturbance to wetlands and floodplains, and designing stormwater swales and collection basins on federal installations. (Water Supply #1)

Preservation and Historic Features Element The federal government should:

- Protect views outward from the L'Enfant City and views inward from vantage points along the rim of the topographic bowl from inappropriate intrusions. Open space should be preserved to allow for public use and enjoyment of these views. (The Historic Plan of Washington, D.C. Policy #7)

Staff has determined that the Master Plan and TMP are **not consistent** with the following policy under the Federal Environment: Federal actions in the region should conform to the following policies

Mobile sources of air pollutants should be reduced by:

- Further decreasing federal employee usage of single-occupant vehicles through operational policies, such as Transportation Demand Management techniques, and the location and design of workplace facilities. (Air Quality Policy #1)

Staff has determined that the Master Plan and TMP **are not consistent** with several relevant policies under the Transportation Element:

- By limiting parking at federal facilities within easy reach of the Metrorail system and supporting transit incentive programs, the Transportation Element provides both an incentive and a rational approach to shifting drivers to transit. (Introduction, p. 79)
- Outside of the Central Employment Area, but within the Historic District of Columbia boundaries, the parking ratio should not exceed one space for every four employees. (Parking Ratios#2)
- Some federal facilities, such as the Pentagon, have direct Metro access...(Parking Ratios: Historic District of Columbia Boundaries p. 84)

Federal agencies should:

- Prepare Transportation Management Plans (TMPs) to encourage employee commuting by modes other than the single-occupant vehicle. (Transportation Management Plans #1)

- Develop TMPs that explore methods and strategies to meet prescribed parking ratios, and include a thorough rationale and technical analysis in support of all TMP findings. (Transportation Management Plans #2)
- Analyze scenarios that incorporate data on employee home zip codes, nearby bus routes, Metrorail, MARC, and VRE lines and their schedules, and that identify existing and planned HOV lanes. (Transportation Management Plans #3)
- Include, within TMPs, implementation plans with timetables outlining each agency's commitment to reaching TMP goals. (Transportation Management Plans #4)
- Update TMPs at least every two years to reflect the most current employee information. (Transportation Management Plans #7)

Federal Capital Improvements Plan

The multi-year phased plan to renovate and rebuild the Pentagon Building to correct health, safety and building deficiencies is recommended and strongly endorsed in the Federal Capital Improvements Plan (FCIP) covering fiscal years 2005 to 2010. The Master Plan is consistent with the FCIP reiteration of earlier Commission comments encouraging the DoD to consider alternate long-term concepts for the north parking lot and calling for its removal and restoration to a landscaped condition as soon as feasible.

National Capital Urban Design and Security Plan

Although not located in the areas covered by the Urban Design and Security Plan (UDSP), efforts to provide additional landscape schemes to soften the security barriers are in keeping with the goals of the UDSP. Landscape mitigation has been planned to soften the effect of the blast protection wall adjacent to Route 27.

Memorials and Museums Master Plan

No sites in the Memorial and Museums Master Plan (MMMP) are located within the Master Plan area for the Pentagon. Although a site has been selected and approved by the Commission for the Memorial to Victims of the September 11, 2001 terrorist attack on the Pentagon, that site is not recognized in the MMMP.

National Environmental Protection Act (NEPA)

NCPC staff has analyzed, in conformance with the requirements of the National Environmental Policy Act (NEPA) the prepared Environmental Assessment (EA) completed by the Department of Defense (DoD), for the Master Plan update on the Pentagon Reservation, in Arlington, VA. The DoD expected completion of the NEPA review by April 29, 2005, but has extended the public comment period until May 11, 2005, because of a technical delay in distribution of the EA availability notice. The DoD completed a Finding of No Significant Impact for the proposed master plan on May 20, 2005.

The staff's independent review finds that the EA conclusions represent an effective analysis of the potential environmental impacts of the plans submitted to the Commission and conform to the Commission's Environmental and Historic Preservation Policy and Procedures for analysis and content review. Distribution and coordination of the EA is in conformance with DoD Instruction 4715.9, May 3, 1996, Under Secretary for Defense (Acquisition and Technology) for DoD planning activities.

The DoD has found moderate to limited effects involving construction phase impacts that would result from the Master Plan development. These temporary impacts may include increased noise and dust, higher construction truck traffic levels, and an altered visual environment. Utilizing appropriate construction practices would minimize these short-term impacts. Overall, short-term, construction-related impacts are anticipated to be minor and would have a temporary effect on land uses adjacent to the Pentagon Reservation. Long-term moderate effects would also result from the Master Plan implementation in altering the visual environment of the Pentagon. This issue is being addressed under the National Historic Preservation Act process as further discussed below.

Staff finds the minor environmental effects and their mitigation supportable and defined by the EA evaluation. Cumulative effects of the proposed action have been identified and considered in the EA.

The National Historic Preservation Act Section 106 reviews have been identified and consulted upon by the Virginia and District of Columbia State Historic Preservation Offices. The State Historic Preservation Officer (SHPO) for the Commonwealth of Virginia, in April 2005, concurred in a finding of no adverse effect.

In the context of noise impacts from master plan elements, the heliport would be located at an elevation at or below the height of the existing RDF and would limit noise generated towards the west. During the design of the heliport, vegetation and potential hardscape elements will be added around it to visually screen the facility and to buffer noise levels. DoD feels these measures would address concerns of noise effects from operations that might impact Arlington National Cemetery.

Staff believes the DoD environmental determinations are sufficient for evaluation of the proposed project and support the mitigation actions identified in the EA.

National Historic Preservation Act (NHPA)

DoD has concluded its Section 106 consultation with the Virginia Department of Historic Resources (VA SHPO) with concurrence with DoD's determination of *no adverse effect* for the Master Plan on historic properties. The VA SHPO anticipates that DoD will consult on individual projects described in the Master Plan as they are planned and designed.

The Pentagon is a National Historic Landmark. It was completed in 1943 to house the rapid expansion of the military during World War II, and became the headquarters of the Department of Defense when it was created in 1947.

DoD initiated consultation with the VA SHPO in January 2005. DoD determined that the proposed master plan would have no adverse effect on the Pentagon, citing, among other reasons, the facts that the Master Plan proposes no revisions to the Pentagon building, would greatly expand the amount of green space on the reservation through elimination of the paved surface parking lots, incorporates green roofs on the parking structures, and includes conceptual design guidelines to protect the view sheds to and from the Pentagon. Further, DoD determined that the implementation of the Master Plan would not alter the setting or otherwise affect nearby historic properties, which were identified as Arlington National Cemetery, the George Washington Memorial Parkway, Freedman's Village, Foxcroft Heights, and Fort Myer.

The Master Plan envisions the completion of the perimeter security around the complex and the maintenance of the security stand-off zone of 360 feet. Some of those projects have been the subject of separate Section 106 consultations already. In addition, the Master Plan envisions the integration of the 9/11 Memorial into the approved site.

Staff believes that the most significant visible improvement that will occur at the reservation is the removal of the surface parking lots and their replacement with green space. While there has always been surface parking at the Pentagon, the amount has expanded in recent decades. The construction of parking structures with green roofs will improve the visibility and prominence of the Pentagon in the context of its site. This is important because of other construction around the Pentagon in recent years, such as the Transit Center and the extension of the entrances on two sides. The historic River Terrace and Mall Terrace, in particular, will regain their architectural prominence when they are no longer surrounded by vast paved surfaces that overwhelm them.

Further, the proximity of the Pentagon to significant natural features such as the Potomac River and its associated parkland and lagoon and to the Parkway, as well as to the Monumental Core will be reinforced by the expansion of the green setting. Views of the Pentagon from higher elevations at Arlington National Cemetery, FOB 2, and the future Air Force Memorial will be improved by the additional green surface, as will those from the surrounding arteries, which are the views of the Pentagon most familiar to the public on a daily basis. Even with one- and two-level parking structures (above grade), the relative height of the Pentagon ensures its prominence in the setting, especially since most public views are from higher elevations. The proposed removal of the north surface parking lots near Boundary Channel and the area's redevelopment as green space for recreation is a long-standing policy of the Commission, as reflected in both the current and former Comprehensive Plans. Staff commends DoD for envisioning an improved setting for this highly significant historic property.

CONSULTATION

In addition to responding to and directly addressing Commission comments from the 1991 master plan, the current master plan revision is also a product of consultation reaching back for several years. The DoD held a series of stakeholder meetings in 2003 during the scoping for the Master Plan.

Commission of Fine Arts

During its meeting of 19 May, 2005, the Commission of Fine Arts reviewed the Pentagon Master Plan. The members were pleased with the approach outlined in the plan for improving and greening the Pentagons' surroundings; specifically eliminating large areas of surface parking and replacing with green-roofed structures to accommodate vehicles. However, they expressed concern with the potentially negative visual impact of parking structures adjacent to the Pentagon Lagoon. To minimize any potential negative impact, it was suggested that terraced landscaping be incorporated into the design to soften edges and minimize visual bulk.

Referral to relevant local planning agencies

The revised master plan and transportation technical document were referred to Arlington County, the Northern Virginia Regional Commission (VNRC), and the Virginia Department of Transportation (VDOT) for review and comment. VDOT's comments provide some refinements to the document's recommended roadway improvements and question whether signalization would be warranted at the proposed Rideshare Facility location. VDOT recommendations are further detailed in the Analysis Section of this report. VNRC responded with no comment.